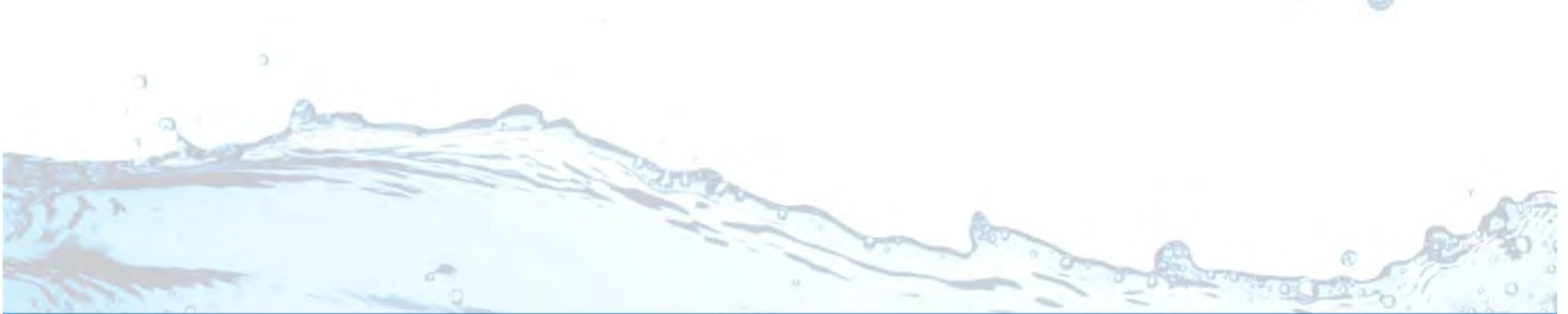


ACTIVITY CE «CHERNIHIVVODOKANAL» DURING THE WAR

*consequences of military actions and
reconstruction of critical facilities,
security measures from our experience*



Chernihiv was occupied on 24 February 2022



Chernihiv before and after shelling



How the residents of Chernihiv survived



toilet



**wastewater
pit**



Subject to full restoration:

**14,8 км
of water supply
networks**



**10,5 км
of sewerage
networks**



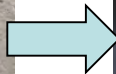
Artesian wells and water tanks destroyed by the russian occupiers



Help from an «Save the children International»



**Reconstruction
of an artesian
well №3
on WPS-1**



Water pumping station № 2



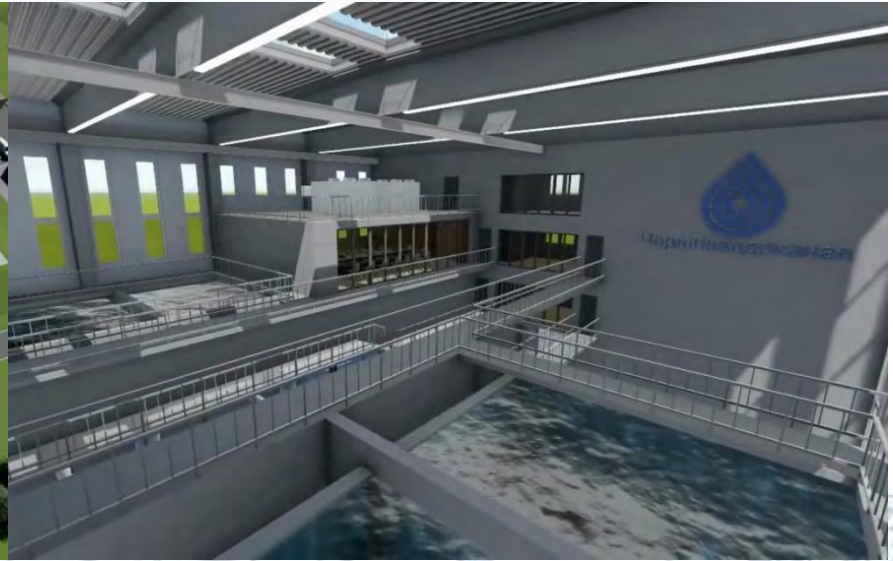
**3 of 5 water pumping station
were damaged in Chernihiv**

**The share WPS-2 of water supply
in the pre-war period was 34%**



Reconstruction of the WPS-2 in Chernihiv

		(€ million)
The estimated total cost of WPS-2 reconstruction		36,6
I	Restoration of the functioning of WPS-2	12,1
II	Construction of the station for removing excess iron and manganese	24,5



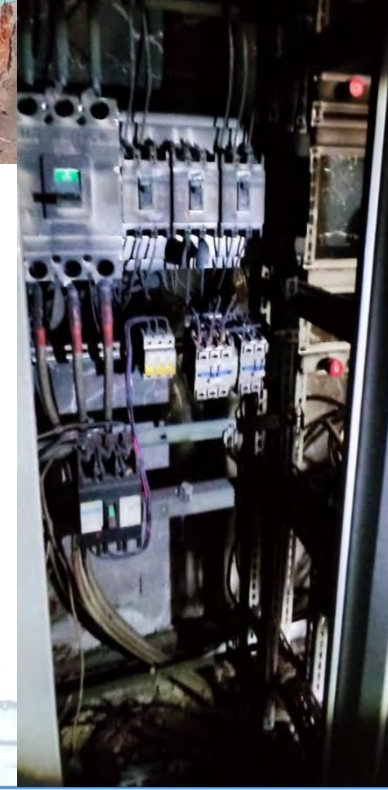
Video «Reconstruction of the WPS-2 in Chernihiv»



Wastewater pumping station №3



**Chernihivvodokanal
has 23 wastewater
pumping stations,
8 of which were
damaged**



Wastewater treatment plant in Chernihiv

The wastewater treatment plant was built more than 60 years ago.

The estimated total cost of reconstruction of WWTP - € 35.6 million

Reconstruction of the air supply system

Reconstruction of aeration tanks

Reconstruction of grit chambers, primary and secondary settling tanks

Construction of biogas system



Specialized equipment destroyed by the russian occupiers



**4 specialized equipment units
of the Chernihivvodokanal
were utterly destroyed:
2 crane trucks and 2 manipulators.**

**14 more units motor transport
suffered various degrees of damage**



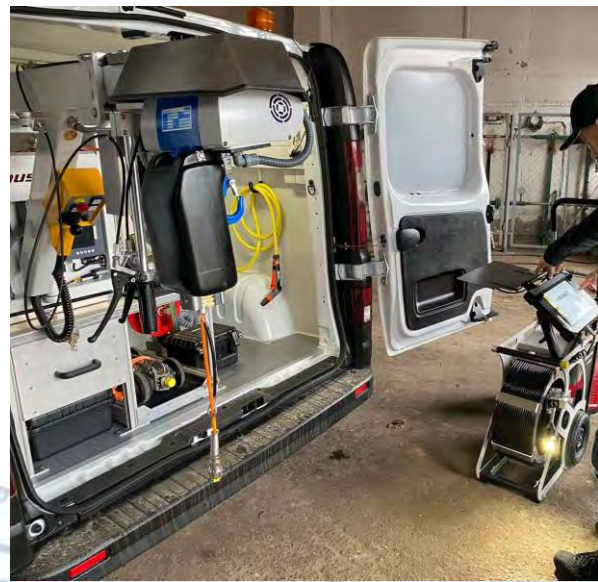
Specialized equipment received form partners

Type	Q-ty
truck crane	2
water truck	2
excavator	3
manipulator	2
special car	3
teleinspection laboratory	1
loader	1
Σ	14



Help from the Swiss Agency for Development and Cooperation (SDC)

Rausc-laboratory on the base Renault Trafic with equipment for diagnostics and inspection of water supply networks Ø100 – 800 mm



Help for CE «Chernihivvodokanal»

№	Найменування	К-ТЬ
1	Generators (from 1 to 240 kW)	42
2	Pumping equipment	17
3	Specialized equipment	14
4	Financing for project documentation	6
5	Reconstruction of the water supply network	1
6	Reconstruction of an artesian well	1
7	Equipment and materials	277



ICRC



german
cooperation

DEUTSCHE ZUSAMMENARBEIT

Implemented by

giz

Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH



**Save the
Children**



КП «ЧЕРНІГІВВОДОКАНАЛ»

water.cn.ua

Repair of bomb shelters of CE «Chernihivvodokanal»

The bomb shelter on the territory of CE «Chernihivvodokanal»

The bomb shelter on the territory of the WPS-2 (materials were bought, work was carried out by water utility workers)



- *The air filtration system has been modernized*
- *The modern water purification system has been installed*
- *The conditions of stay of employees have improved*



Safety measures for water utilities

Make artesian wells and street water collection columns in different locations of the city



Equipment of artesian wells and pumping stations with generators



Non-distribution of information about the location of the utility's production facilities (networks, pumping stations)



Safety measures for water utilities

The use of exclusively a special connection in communication



Distribution of special transport to different locations and production facilities



Arrangement of bomb shelters at the utility



Provision of fuel reserve (on average for 3-4 weeks)

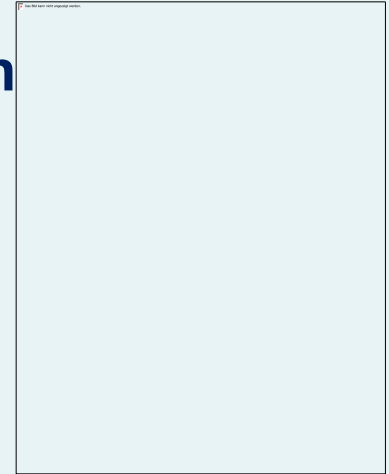


Safety measures for people

Constantly change drinking water distribution points



Arrangement of yard toilets in case of termination of centralized sewerage



Arrangement of yard toilets in case of termination of centralized sewerage



Prohibition of using the geolocation function in mobile phones



Thank you for attention

Director

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